

Abstract

An oscillation circuit including first and second voltage-controlled oscillator each having a resonance circuit including a pair of varactor diodes, and first and second buffer amplifiers for feeding-back high frequency signals generated from the first and second voltage-controlled oscillator to the second and first voltage-controlled oscillators, respectively. A control voltage is applied to the varactor diodes to generate output high frequency signals having a same frequency and a mutual phase difference of 90 degrees from the first and second voltage-controlled oscillators generate. By adjusting an amplitude of the control voltage, resonant points of the resonance circuits of the first and second voltage-controlled oscillators are changed and the frequency of the output high frequency signals is changed, while phase noise can be sufficiently suppressed over a wide frequency range and a power consumption can be lowered.